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ABSTRACT

From about age four to age eleven, a child's concept of "word" develops from a lack of conceptual differentiation about things and events to an awareness of words as meaningful elements in themselves. Piaget's theory of cognitive development offers a perspective from which this phenomenon can be evaluated. The preoperational and concrete operational stages have characteristics that match the development of word concepts. In addition, children have a tacit awareness of language and print that they use at a subconscious level. There seems to be a development from centering on a subjective system to centering on an objective system at the tacit level of language development. Tacit and conscious knowledge together interact as children develop the idea of word as content and word as form. As a child develops, teachers or parents can give assistance. An illustrated alphabet strip in the child's bedroom, dictated experience stories, labeling objects in the home, and categorizing games with words are strategies that help children along to a wholesome concept of words. (TJ)

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# Primary Children Think About Words:

# Concepts and Implications

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Primary Children Think About Words:

Concepts and Implications

Assumptive teaching is a bugaboo that we continually struggle to avoid. We may inadvertently assume, however, that our pupils possess a fair degree of knowledge about certain concepts during the initial phases of reading instruction. Even if we are alert to the possible differences between ours and our pupils' concepts, we may not be very sure about the nature of these differences.

This problem is particularly true with regard to words. We often heave a grateful sigh when we believe that we have finally been able to direct our pupils' attention profitably to word structure. Because the word is such a popular unit of analysis in beginning reading instruction, it seems imperative that we try to discover the nature of children's conceptual constructs about "wordness."

With the foregoing in mind, I would like to address four basic areas in this paper. First, I shall briefly review three lines of research that have attempted to discover what in fact children consciously know about words. Second, I would like to relate the findings of these studies to Piaget's theory of cognitive development. Third, through an investigation of children's knowledge of "correspondence rules" between print and speech, I hope to demonstrate the systematic but largely tacit, or subconscious, way in which children conceptualize word structure. Finally, I shall attempt to pull as many of the theoretical and practical threads together in an attempt to discuss what we as teachers can and cannot do in facilitating children's learning about words.

## Children's Concept of Word: Representative Research

Downing (1970; 1974) investigated young children's ability to identify whether or not different verbal and non-verbal stimuli are perceived as words. He notes that the terms "word" and "sound" are rather poorly understood by 5 year-olds, and that up until about 6½ years of age children tend to confuse phrases and sentences with spoken words. Interestingly, children between the ages of 5½ to 6½ tend to exclude longer words from their concept of what constitutes a spoken word.

Downing cites Vernon's (1957) reference to the "cognitive confusion" with which the child often approaches the task of learning to read. He suggests that an important phase--the cognitive phase--is often neglected early on in school. This is the phase in which the learner acquires the basic concepts about reading and the knowledge of what kinds of stimuli to attend to. As an example of the child's "cognitive confusion" Downing characterizes the young child's "groping for meaning" of the term "word." For such a child, the most obvious segment that might correspond to word is a "chunk of meaning" (1970, p. 111). "Fish and chips", for example, might just as well be a word as "milk."

Studies reported by Francis (1973) support the belief that children do seem to experience the sort of "cognitive confusion" to which Downing refers. This confusion, however, is not due so much to any inability to understand the abstract conceptual nature of the reading task. Rather, it is due to an unfamiliarity with what

Francis calls an analytical approach to language. Furthermore, the overlap of reference in using terms such as word, reading, and letter also contributes to this confusion. Francis offers a valuable insight into the nature of the concept of word, and it is one to which we will return many times. She suggests that children's notions of units in language--specifically words--appear to arise from an analysis of written forms as the children learn to read.

Both Downing's and Francis's research, although valuable and quite illuminating, possess a basic shortcoming. That is, while these studies ingeniously tap young children's ability to identify wordlike stimuli, they do not pose a most important question to the children: what is a word? A study by Papandropoulou and Sinclair (1974) asked precisely this, as well as other fascinating questions. For this reason, Papandropoulou and Sinclair's study will be examined a bit more closely.

As Papandropoulou and Sinclair express it, they sought to "obtain some insight in the different ways the cognitively developing child elaborates a conception of the representational system we call language" (1974, p. 248). They perceive a gradually developing concept of wordness in which words become detached from the objects and the events to which they refer. Only much later in cognitive development do words become regarded as "meaningful elements inside a systematic frame of linguistic reference," or, in other words, elements in a grammatical system. As a result of interviews involving over 100 children between the ages of 4 and 11, the

investigators identify four levels of what they term "metalinguistic awareness." This awareness is identified as the ability to think about language (words) as an object of study.

At the first level of metalinguistic awareness (ages 4-5), there is a lack of conceptual differentiation between words on the one hand and things and events on the other. A "strawberry" is a word, for example, because it "grows in the garden." "Pencil" is a word "because it writes." When asked to say a "short" word, one child responded with "primrose--because it is small." A response to the request for a "long" word was "train--because it has a lot of cars"; another response was "a boy running, running, running as fast as he can." Responses to requests for "difficult" words included "a tooth--because it falls out"; "radio--nobody explained it to me"; "to put away your toys." When asked to invent a word, one child replied "a fish in a bowl without water." As we can see, then, words at this level are inextricably entwined with the objects and the events that they refer to. Words do not have any kind of conceptual independence for 4- to 5-year-old children.

At the second level of "metalinguistic awareness" (5-7 years), words begin to have certain properties of their own. These properties are distinct from the properties of the objects and the events to which the words refer. When children at this level think about words, they no longer think only of what is being talked about (what they are referring to) but of what is being said. According to Papandropoulou and Sinclair, this is the beginning of metalinguistic

awareness. To the question "what is a word?" children reply that it is "what you use to say about something" or "what you use to name something." Only contentives, incidentally, and not function words, are identified as words. The is not a word because, as one child expressed it, "you need something else--the truck--no, you need two things--the truck, well, it goes." On the basis of this and similar types of responses, the investigators observe that it is necessary to have a topic and a comment. Only the union of topic and comment constitutes a word. Other examples of this union are evident in the following responses. When asked to propose a long word, a child replied, "he goes away, and then he comes back." The same child's response to a short word was "he goes away." Other examples of long words are "a cat that is taking a walk" and "a snake that lives in the forest." In these cases Papandropoulou and Sinclair note that length depends not so much on the object or event to which a word refers, but rather in what is said about the object. Interestingly, children at this level begin to refer to the substance of words in terms of letters. This concept is still in a bit of disarray, however, as is apparent in this child's response: "words are letters that go together"; "he" is not a word, though, "because there aren't enough letters."

At a third level (7-8 years of age) words are "bits of a story." "Chair" is a word, but "it doesn't tell a story, it doesn't make a sentence." Children at this level appear to conceptualize words as "elements of a complex entity." This entity carries a meaning and

is built up of several words. Children give examples of long and short words based on length. The criteria for length are number of letters or number of syllables. Any reference to meaning is made not in terms of individual words but rather in terms of a larger structure such as a sentence or a story. All words are recognized as words, whether they be contentives or function words.

At the final level identified by Papandropoulou and Sinclair (8-10 years of age), words are conceptualized as meaningful elements in themselves, rather than in terms of their role in some larger structure, as at the previous level. In addition, words are conceptualized as members of a grammatical system. A surprising yet suggestive phenomenon emerges at this level--in defining a word, the children only rarely refer to hearing or sound. Most often, they describe the form of a word in terms of letters.

The investigations discussed here share certain underlying commonalities. First of all, children's concept of "wordness" becomes increasingly differentiated with cognitive development. Within the span of approximately six years, children move from the idea that words are properties of the objects and events to which they refer, to the realization that words are, in effect, arbitrary conventions. Therefore, words can be conceptualized apart from their referents as members of a logical grammatical system. Second, words become pared down, as it were, in terms of the length of the spoken utterance to which they correspond. Whereas words correspond initially to sentences or phrases, they eventually become limited to

the length with which we as adults are familiar. Third--here is the provocative assertion once again--words may become conceptually distinct as a consequence of children's interaction with visual language.

Papandropoulou and Sinclair perhaps express this last point best when they state that "the written word is in a sense a permanent result and, moreover, an objective product of verbal activity" (1974, p. 257, emphasis added).

## A Theoretical Perspective

How might we best organize and account for the range of phenomena that have emerged from the exploration of children's concepts of wordness? As in so many other areas of cognitive concerns, Piaget's theory of cognitive development offers the most coherent perspective from which the phenomena can be evaluated. Downing (1970), in fact, notes that Piaget's theory suggests that, at the conventional age for beginning to learn to read, children cannot deal with the abstract ideas reflected in both the task and the terminology of reading. This fact, together with the well-attested egocentricity of the child at this age, "is hardly conducive to a spontaneous understanding of the purposes of the written form of language" (1970, p. 111).

The children with whom we are concerned in this paper--primary-age pupils being readied for or being involved in formal reading instruction--fall into two Piagetian stages of cognitive development:

preoperational (2 through 6 years of age) and concrete operational (7 through 11 years of age). I would like to make a quick overview of a few characteristics of each of these levels before seeing how the concept of wordness fits into them.

The preoperational child is perceptually governed. He or she is attuned to the features of whatever stimuli are being observed at a certain time. The concrete operational child, on the other hand, is more conceptually oriented. He or she is freed from the here-and-now perception and can mentally play with thoughts such as "what might happen if?" In addition, the concrete operational child can transform objects and events in a variety of ways without actually having to perceive these transformations in the immediate present. Preoperational children are sensitive to states of things in the immediate present. They do not understand transformations from one state to another. For example, in the classic Piagetian experiment involving water that is poured from a short, fat beaker into a tall, thin beaker, the preoperational child is able to perceive only the state of the water prior to and after the pouring. The transformation--the pouring--is ignored, being rather brief anyway and, though not necessarily forgotten, is unavailable for later perception. The preoperational child cannot break away from the notion that, although we are still talking about the same water, in the first case there appears to be less water because it is in an apparently smaller container. In the latter case, there appears to be more water because it is in an apparently larger container. On the other hand, the concrete operational child is able to suspend judgment based on

perception of states, so that the effect of transformations is included. In Flavell's terms (1977), perceived appearances are superceded by inferred reality. In effect, although the concrete operational child's perceptions are relating one type of information, he or she is able to transcend the immediate stimulus and infer the actual condition. This ability suggests another important Piagetian concept: the concrete operational child is able to decenter attention from one salient feature of a stimulus to consider simultaneously several featural attributes. The preoperational child is unable to do this. His or her perceptual apparatuses lock into one type of information and the child cannot be freed from that one aspect of the stimulus.

There is yet another Piagetian concept with which we must deal, then we will be ready to consider words within this framework. The concrete operational child understands reversibility. If an object is transformed, it can usually be returned to its former state. The concrete operational child can effect this reversible operation in his or her head. The preoperational child cannot do this. When something is changed in form, it cannot be mentally changed to return to its former state.

Of course, children do not pass from one Piagetian stage to the next in the same fashion that one moves from one room into another. Rather, they often pause "in the doorway," where aspects of both rooms might be apparent. One of the most challenging tasks for primary grade teachers is to identify those children who are in the

doorway. The conceptual sophistication of these children will vary depending on the particular learning activity in which they are engaged. Such is the case with word knowledge.

At the preoperational stage, then, children are indeed egocentric. They tend to define the world in terms of perceived features as these features relate to the children's own subjective world. Being unable to be "objective" in any adult sense of the term, they cannot pull back from the immediate present and reflect on matters. This is the case with language--even more so, perhaps. Language is not objectified in the environment for the child. It is something that is automatic and a part of the child's subjective self. It is always inextricably bound up within every activity and is a part of that activity. It is never "out there" in the sense that the child can look at it, and gradually begin to differentiate himself or herself from it.

If we recall that the Level Two children in Papandropoulou and Sinclair's study (those between the ages of 5 and 7) are in various degrees of transition between preoperational and concrete operational thought, we can begin to understand how these children's conceptualization of words is rather fragile and partial. For these children, there is still a close correspondence between "what is being said and what is being talked about--not yet a formal, generalized reflection on words as such" (Papandropoulou and Sinclair, 1974, p. 249). Conceptually, these children are lingering in the doorway. They can, to a degree, "think about what they just said" (p. 246),

but the notion of linguistic units--in this case words--is quite unclear.

Notably, in Papandropoulou and Sinclair's study and in Downing's studies, children within this age range (5-7) begin to incorporate letters into their thinking about words. This is the first type of word segmentation that begins to impinge on children's conscious reflection. We can see the beginnings of the objectification of language through print. Visual language is the perceptual here-and-now that allows attention to language as an object of study. Print is a state to which the children can perceptually attend. It is not as transitory an affair as is speech. In Francis' terms, these children are not able to approach language analytically. Through learning to read, however, they are required to attend to units and subdivisions. As Francis states, the conscious ability to note features of words is a function of attending to visual language.

Toward an Understanding of Children's Tacit Knowledge of Words

At this point we might be tempted to endorse Vygotsky's observation, made over forty years ago, that "the development of psychological foundations for instruction. . .unfolds in a continuous interaction with the contributions of instruction" (1962, p. 101). Before jumping to specific (and perhaps simplistic) suggestions for teaching, however, I would like first to consider the other side of the knowledge coin--the child's tacit awareness of language and print.

Recently, cognitive psychologists have emphasized the investigation of "tacit" knowledge--knowledge that humans are able to use at

a subconscious level (Weimer and Palermo, 1974). The prevailing attitude is that this type of knowledge is at least as important as conscious knowledge in determining the global aspects of cognitive functioning. For those of us concerned with what goes on when children learn, the issue of tacit knowledge is just now beginning to achieve well-warranted attention. By extending our analysis of how children actually think to include tacit knowledge, we are shedding a qualitatively brighter light on what we can hope to accomplish in the classroom.

Long before the transition to concrete operational thought occurs, the preoperational child may be said to have internalized a highly sophisticated system of language--he or she has practical knowledge of language, the "how-to" of communication. This knowledge, however, is largely tacit. How might the child at this stage, then, subconsciously conceptualize the relationship between print and speech? Recent research investigating the "invented spellings" of young children (Read, 1975; Henderson and Beers, 1976) suggests that children tacitly categorize speech sounds in a highly systematic fashion for the purposes of writing. Read has suggested, in fact, that children tacitly abstract the principle of spelling. They do not need to be explicitly taught the idea of the encoding system by which speech is represented through print.

A couple of examples are in order. In an initial study by Read (1971), data were obtained from children who did not know how to read, but who did know the names of the letters of the alphabet.

Armed with this minimal knowledge, the children are observed uniformly to construct a fascinating system of mapping speech to print. At first, children seem to be sensitive to consonants in their spelling, and they omit the vowels. For example, sit might be spelled ct. Shortly thereafter, the vowel is included, but it may not be what adults, with the benefit of their knowledge of the spelling system of English, might expect. The child might write cet. Still later, we might see set and, finally, sit. Why the odd choice of e to represent the sound of short i? Read suggests that such a representation is based on certain phonetic features that are common to both short i, the sound that the child wishes to represent, and long e, the sound represented by the letter e.

Recall that the young speller knows only the names of the letters of the alphabet. When confronted with a sound such as the short i in sit, the child does not know a letter whose name represents that sound. The child does know the names of the long vowels, however, and thus represents the short i with a letter whose "name" is closest to the short i judging by point of articulation. Long e seems to fit the bill quite nicely. In addition, the child may recognize the similar acoustic properties of these two sounds.

Consider another example. Suppose the child wishes to spell stake (as in tomato stake; we won't worry about the homophony between stake and steak at this point). Again, as with sit, the initial spelling would probably have the vowel omitted, and the child would write stk. Later, the vowel would be included, but

this time the child's choice is not so complex (from our adult perspective, at least) as was the case with sit. The vowel in stake seems rather straightforward; it is a long vowel, and there is a letter whose name represents the sound the child wishes to spell. Thus, the child writes stak. Something strange, however, happens a little later on. This may be attributable to the child's sensitivity toward the nature of English spelling during early instruction in reading. The child learns the spelling of short vowels. (This is the point, for example, at which sit might be spelled correctly.) But what happens to the previously correct spelling of long a in stake? It is discarded by the child, and stake is now spelled stek. In effect, the child is endeavoring to establish a fact of the spelling system that says that, for purposes of spelling, short and long vowels are related in terms of point of articulation. This is precisely what happened when the child earlier tried to spell short i with the letter e. In this second case, the child has learned that the letter e is used to represent short e, and correctly spells short e with the letter e. Long a, however, is close judging by point of articulation to short e, so the letter e is now used to represent long a as well. It is a powerful impetus on the part of the child that strives toward a systematic structure in a spelling system. This effort to establish an order in the spelling system occurs at the expense of overthrowing a previously correct spelling strategy. What seems to be going on here?

It should be noted, of course, that the child eventually sorts

through these strategies and comes up with the correct representation of short and long vowels. Interestingly enough, however, this resolution does not seem to occur until the child has passed through the various degrees of transition from preoperational to concrete operational thought, and has both feet rather firmly planted in the concrete operational stage (Zutell, 1975). Prior to this resolution, the various intriguing spelling errors the children make evidence a fascinating interaction between their natural contribution to the system of sound-spelling correspondences and the structure inherent in the actual spelling system of English. We see the child centering first on a subjective and then on an "objective" system primarily at a tacit level.

Conscious and Tacit Word Knowledge: A Tentative Synthesis

We can now try to gather together the threads of tacit (subconscious) and conscious knowledge in an effort to characterize some important aspects of word knowledge in primary-grade children.

We see an interesting interaction between the children's idea of word as content and word as form. The content aspect involves the child's conscious reflection on the notion of "word" as label for thing or action. The idea of form reflects the child's gradual attention to the make-up of a word--and much of the research in this area suggests that, for young children, the make-up is letters, not sounds.

The very aspect that we have often assumed, and which Downing has assumed, is most difficult for children to master--the notion

that print represents speech (in our thinking, a more "abstract" notion)--is not in fact so difficult for children to grasp. Moreover, print actually serves to facilitate children's concepts of words as spoken entities. Print introduces children to the concept of segmentation in language, putting language "out there" to be looked at and studied.

It is also apparent that, armed with a knowledge of letter names, children tacitly abstract the principle of spelling, that is, the mapping of sound to print. And the fact that they quite naturally seem to represent more than one sound with the same letter demonstrates that they do not tacitly expect the writing "code" to reflect a one sound-one letter foundation. They are tacitly developing an awareness that print represents speech, yet they cannot consciously reflect on this, because speech itself is not yet an object of reflection. The segmentation of print for purposes of writing is not accompanied by a corresponding segmentation of speech. Spaces in the children's writing are most often, at the early stages, arbitrary. The child's attempts to establish a written "code" for speech do not at first reflect a sensitivity to the actual orthographic structure, or spelling, of words. The criteria are subjectively imposed, so much so that later on, as we have seen, the child overthrows a well-established principle--the fairly correct spelling of long vowels--for an "incorrect" spelling in terms of actual English spelling, but one that is considered correct judging by the child's criteria.

Once young children look at words, what do they see? The preoperational child, recall, is "stimulus bound"; he or she "centers" on the graphic array, but not on the sound. The relationship between sound and print is still tacit. These children are attending to visual states, the here-and-now. If children are prematurely inundated with instruction that emphasizes parts of written words that correspond to parts of spoken words, confusion will probably result. The child does not have the conscious knowledge that the printed word has an internal structure that is ordered and rule-governed. Only by being continually exposed to printed words and by attending to their components will the child eventually learn to differentiate word structure. This differentiation involves, for example, understanding and manipulating beginning consonants, consonant blends, and vowel phonogram patterns.

Once children are attending to word structure, it is difficult for them to understand transformations of words. A good example of this can be seen in our familiar "word family" games. The preoperational child, or the child in transition from preoperational to concrete operational, can attend to the words cat, fat, and mat, but cannot grasp the principle of consonant substitution. The child is attuned to the perceptual here-and-now, to the state of the words. Despite a teacher's best efforts, he or she cannot directly teach these children to infer an aspect of the reality of word structure. The children cannot infer that we can hold parts of words constant while transforming other parts--this is a more abstract principle.

Closely aligned with the child's inattention to transformations is the phenomenon of irreversibility. In a consonant substitution exercise, for example, the preoperational child cannot "undo" the switch from cat to hat--in effect, he or she is asking the teacher, "what's the point?" Each word is a state. Each state can be learned as a global whole, but cannot be transformed or altered. When we ask children to alter word structure, we are asking them simultaneously to manipulate a sound and a graphic pattern. This demands a conceptual rather than a perceptual task. The preoperational child, and the child in the transition from preoperational thought to concrete operational thought, simply cannot consciously handle such an operation.

Children are tacitly able to do what they will need to do consciously later on. In the case of words, they are able to represent segments of the speech stream with letters, as the research in invented spellings has indicated. At this time, however, they are not consciously able to segment words phonemically. This may seem a bit paradoxical, but if we look at language as a whole, the phenomenon is not quite so puzzling. Children learn a language with no conscious awareness of whatever rules they are using; the conscious analysis will come later. It certainly appears that they approach written language in much the same fashion--if allowed to do so.

## Implications: Back to the Environment

I have pointed out what children cannot do with regard to word study. What can they do, and what can we do to assist them through the transition stage to the point at which they can deal with words simultaneously at different levels? First of all, it would be well to consider where the children are cognitively coming from. In other words, we do not want to fall prey to the notion that "preoperational" is bad and that getting into "concrete operations" is good. In this regard, we should do well to consider Flavell's admonition against believing that preoperational thinking is "a cognitive malady from which the child gradually recovers with the advent of concrete operations" (1977, p. 98). Actually, the quality of the child's environment is crucial at the preoperational level, as it is at every level.

Tacit knowledge precedes conscious knowledge, just as comprehension precedes production, so we need to surround the preoperational child with printed stimuli that can generate tacit assumptions. For example, an illustrated alphabet strip in the child's bedroom is as good an idea as one in the classroom. Similarly, labeling objects in the home provides lots of raw data. Preoperational children need to play with visual language on their own, subjective terms. We simply provide the raw data for them, and direct their attention to it.

The preoperational child is capable of assembling quite a sight vocabulary but is not capable of conscious internal analysis of

individual words. In the transitional stage, his or her concept of "word" is moving to include the graphic form. Papandropoulou and Sinclair indicate, however, that "words" will still be considered as bits of a larger, meaningful whole. So we should allow for considerable exposure to them in a meaningful context. Dictated experience stories, for example, are an excellent means by which this can occur. We should not assume that a sight vocabulary and the concept of reading will come about as a result of "sound and letter" workbook exercises--this only scrambles the necessary input of raw data. It is a pedagogical irony that those children who have not passed from preoperational to concrete operational thought--and thus are unable to reflect on their own objectified language--are continually exposed to instruction predicated upon just this type of reflection. Furthermore, the children are rechanneled through similar types of activities when the initial instruction does not take hold.

While a good sight vocabulary is being developed, the preoperational child can play with link letters, for example, as well as write the letters (if he or she is able to do so). No "rules" from us, yet. We must remember that the children are coping on their own terms. We can periodically and informally asses s the child's level of conceptual understanding about words. We can begin in earnest with analytical phonics instruction when the children are ready, and not before. That is, we will deal with the whole word and move inward.

Once children are at the concrete operational level, they often seem to "fixate" upon a concept of print as always corresponding in some one-to-one fashion to speech. I have a hunch this may be a direct consequence of instruction. We now know that English spelling provides information not only about sound, but about syntactic and semantic features as well. Many children, however, do not move beyond a preoccupation with the aspect of sound. By encouraging concrete operational children to play categorizing games with words, just as they would categorize objects, we assist them to come to the realization that words are not conceptualized in reading as mere reflections of sound. Rather, the children can realize that words have a fascinating structure in themselves.

From an instructional standpoint, I have offered few earth-shaking suggestions, apart from an appeal for restraint in bringing on word analysis in a formal instructional setting. We cannot hurry children along to a wholesome concept about words and to a bulging sight vocabulary. We can, however, provide the right atmosphere, the excitement, and the motivation for a curiosity about print. We should not be hesitant about surrounding children with print. Contrary to Downing's suggestion (1970), it may not be so difficult for children to understand the purpose of written language. Rather, the difficulty seems to reside in a premature formal analysis of the units of language that relies heavily upon sound.

## Summary

Children should not be expected to achieve an adult conceptualization of wordness during the first year or two of instruction. As Papandropoulou and Sinclair suggest, the concept of wordness continues to expand throughout the first years of school, and there is evidence to suggest that the concept continues to grow well into adolescence (Templeton, 1977). Awareness of "wordness" seems to be better facilitated by attention to visual language than to spoken language.

From the pedagogical perspective, a qualitatively richer concept of word structure can be nurtured by a "facilitative" environment. I apologize for employing an admittedly overworked educational term, but if we have learned anything over the years it has been that children do not uniformly learn on a one-for-one, stimulus-response basis. Individually, they set up the rules for concept formation. The environment that allows for this type of learning ought to be our objective.

I have addressed just a few aspects that need to be considered in investigating young children's knowledge about words. I believe, however, that the important factor--an unhurried, stimulating environment in the primary grades--will nicely accommodate the growing body of knowledge about the child's understanding of both the content and form of the concept of "wordness."

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